UNIVERSITI TEKNOLOGI MARA

THE EFFECT OF BIO-ORGANIC FERTILIZER 'PLANT BOOSTER'ON THE YIELD OF PADDY (*Oryza sativa*)

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Final year project report submitted in partial fulfilment of the requirements for the degree of
Bachelor of Science (Hons.) Plantation Technology and Management

Faculty of Plantation and Agrotechnology

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CANDIDATE'S DECLARATION

I declare that the work in this Final Year Project was carried out in accordance with the regulations of Universiti Teknologi MARA. It is original and is the result of my own work, unless otherwise indicated or acknowledged as referenced work. The final year project report has not been submitted to any other academic institution or non academic institution for any other degree or qualification.

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ABSTRACT

Environmental inappropriate effect that caused by the over application of inorganic fertilizer increased the importance of bio-organic fertilizer today. In order to investigate the effect of bio-organic fertilizer (plant booster) on the growth performance of paddy (*Oryza sativa*), an experiment was conducted as complete randomized design (CRD) with five replication and five treatments in rain shelter at UiTM Jasin in 2014. The objective of this study is to determine the best combination rate of bio-organic fertilizer and inorganic fertilizer for rice production and also to determine yield performance of paddy by using different combination rate of bio-organic fertilizer and inorganic fertilizer. Treatment included T_1 = 100% bio-organic fertilizer, T_2= 50% bio-organic fertilizer + 50% inorganic fertilizer, T_3 = 70% bio-organic fertilizer + 30% inorganic fertilizer, T_4 = 30% bio-organic fertilizer + 70% inorganic fertilizer, T_5 = 100% inorganic fertilizer. The result indicted that the effect of bio-organic fertilizer (plant booster) when applied with the inorganic fertilizer showed significant influenced on number of panicle, plant height, yield of paddy, number of tillers and weight of 1000 grain. The result showed that treatment four exceeded all other treatment in number of tillers, number of panicle, weight of 1000 grain, paddy yield and plat height. The use of inorganic fertilizer along with bio-organic fertilizer was found better than applied inorganic fertilizer alone. This study suggests that use 30% of bio-organic fertilizer and 70% inorganic fertilizer should be used for maximizing the rice productivity, reducing input of chemical fertilizer and to sustaining the environmental

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